STRENGTHENING SKILLS IN CLEANING

NUTRITION AND MEAL PREPARATION:



Outcomes of a Training Program for Direct Care Workers

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Summary

Purpose: While training regarding clinical issues in elder care has been widely delivered, minimal efforts have been developed for those workers providing non-personal care services in the home. This article describes the development, delivery and evaluation of the Home Skills Enhancement Project for direct care workers (DCW) in Michigan focusing on skill building in three areas: household cleaning, nutrition/food shopping and meal preparation. Curriucla modules were developed in these three areas as follows:

1. Cleaning the Homes of Older Adults reviews understanding the needs of older adults, and provides a discussion of the challenges the direct care worker (DCW) faces. The culture of cleaning, communication strategies and boundary issues are included. Setting priorities when the DCW has limited time is addressed. A detailed work plan with tips on how to clean each room is included in this interactive module.

2. Meal Planning and Shopping for Older Adults includes a Food Guide Pyramid for older adults, descriptions of key nutrients and challenges that DCWs face in the home. A Food Guide Pyramid for the DCWs helps participants evaluate their own nutritional status. Reading food labels, shopping strategies and determining menu preferences are included.

3. Meal Preparation and Food Safety for Older Adults provides an overview of food safety including bacteria growth, handling of food and freezing and thawing. The importance of food for older adults is discussed with strategies for enhancing the mealtime experience. This module included a cookbook, which is newly revised by MSU Extension, and an insta-read thermometer. The cost of these is being determined. Participants prepare recipes from the cookbook.

Design and Methods: Training was provided to 78 DCWs from various agencies that serve older adults and disabled persons in northern lower Michigan. Participants completed evaluation pre-training and post-training questionnaires and a three-month follow-up questionnaire. **Results:** The majority of participants reported limited training from their employer for their assigned home chore tasks. In each of the three modules,

50% or more of the participants learned new information and reported improved confidence in the key skill areas immediately after the training. Greater gains in confidence regarding cleaning skills from pre- and post-reports for those with high school or less education were indicated than for those with more education ($F=4.08$ (2, 110), $p<.05$). Also, those working less hours per week reported more confidence in cleaning immediately after the training ($F=4.42$ (2,108), $p < .05$). However, DCWs who worked more hours indicated greater job control ($F =17.12$ (1,61), $p < .001$) at three-month follow-up. **Implications:** Trends toward discontinuing or limiting home economics programs within schools has likely impacted the skills of future workers who perform non-clinical home chore services to elders. Relatively low-cost training can be implemented to improve job skills of individuals with minimal training in this arena and may in turn be an important avenue for retention for the aging workforce.

Most older adults rely on family members for help with daily activities such as food preparation and shopping. With current increased life expectancy, decentralization of families, and more women in the work force, there is a trend toward greater dependence on paid caregivers--primarily paraprofessionals who provide direct care in nursing facilities, hospitals, and private homes (Brown, 2002). Further, the desire for many older adults to “age in place” has created more demand for in-home, community-based care and support (Brown, 2002; Scanlon, 2001).

Direct Care Workers, (DCWs), primarily home health aides and personal care aides, comprise the core of the workforce providing care to older adults and/or persons with disabilities in their homes. They provide housekeeping and routine care services in the clients’ homes (Bureau of Labor Statistics, 2006). Typically, a worker will clean, do

laundry, change bed linen, plan meals including special diets, shop for food, and cook for the client (BLS, 2006). In addition, DCWs frequently offer social support to clients, due to the frequency of interaction.

Although rapid growth is predicted for direct care workforce jobs (Bureau of Labor Statistics, 2006), the field suffers from high rates of vacancies and turnover. It is well documented that these recruitment and retention problems are attributed to inadequate training, low pay and few benefits, inadequate mentoring and orientation, few opportunities for professional development, and poor supervision (Harris-Kojetin, Lipson, Fielding, Kiefer & Stone, 2004).

Findings from a recent study of both certified nurse aides and home health workers in Michigan suggest that workers intentionally selected direct care work, not because they had no other career options, but because they had a desire to help others, particularly older adults (Mickus, Luz & Hogan, 2004). The report also found that low wages and poverty status were problematic among DCWs. Lack of control and respect from supervisors were key reasons for vacating positions.

Other research studies on the mental health and well-being of home health workers found that most workers value the opportunity to work one-on-one with clients; helping clients, caring about them, and feeling needed and appreciated are positive features of the job (Denton, Davies & Zeytinoglu, 2002). However, DCWs may find that those older adults who need assistance may be lonely and depressed. When the direct care worker arrives for example, the older adult is often seeking human contact and time, which ultimately impacts the worker's ability to complete tasks.

Training and continuing education have been identified as strategies for supporting workers. In a review of research on DCWs, Harris-Kojetin et al. (2004) examined evaluations of public and private initiatives designed to improve the recruitment and retention of DCWs, including new training programs. Most successful initiatives combined continuing education and training with mentoring and monetary incentives.

Although existing research has focused on training efforts directed at certified nurses aides (CNAs), particularly in nursing homes, few studies have examined training for home care workers who serve older adults. Training of DCWs in general has tended to focus on clinical topics, including an emphasis on transferring (Johnson, Carlsson & Lagerstrom, 2002; Ron & Lowenstein, 2002), caring for individuals with dementia (Peterson, Berg-Weger, McGillick, & Schwartz, 2002; MacDonald, Stodel & Coulson, 2004), and developing communication skills (Winchester, 2003). No studies were found that targeted developing the knowledge and skills needed to complete home care tasks related to nutrition, meal planning, food preparation and housekeeping, sanitation, and safety—all core tasks for home care workers.

As assistance with activities of daily living increases, along with older adults' desire to remain in their community, more workers will be needed to clean, shop, and prepare meals in the future. Training to augment pre-service training on home care services (i.e., nutrition, meal planning, and food preparation, and housekeeping, sanitation, and safety) is strongly warranted and may hold promise for improving retention of DCWs.

This report describes the implementation and outcomes from a longitudinal study based on a training program developed specifically for home care workers of older adults in Michigan. Study objectives focused on improvement in the following three areas related to home care tasks: knowledge; confidence in skills; and job control, workload, and job satisfaction.

Methods

The Home Skills Enhancement Project Curricula

The curricula were developed as a collaborative partnership between a large state university, the state office on aging, and a private, non-profit community-based agency specializing in training.

In preparation for the curricula development process in late 2003, a survey was sent to 48 Commissions and Councils on Aging throughout the state to assess training needs related to home care services, as well as interpersonal skills in working with older adults. These agencies are responsible for hiring and supervising home care workers through the Older Americans Act.

Of the 18 responses received, only four offered staff training in meal preparation and shopping. One agency stated, “It would be great to have a standardized training for light homemaking.” Only seven (40%) of the responders stated that the homemakers were well prepared in homemaking skills prior to employment. Seven (40%) felt that current staff could use improvement. Another participant commented, “Training courses in these areas would be great! I would send all my staff.” The training curriculum for this project was developed by a certified gerontological nurse, with input from county extension offices and the regional area agency on aging. Feedback was provided

during an informal focus group in which the draft curricula were reviewed. Subsequently, the focus group feedback was added to the training materials, targeting specific skill areas in cleaning the home, meal planning/shopping and food safety/meal preparation.

The training used interactive exercises, e.g. role-playing and small group discussions designed to build on past experiences of the participants. Communication skills and understanding the needs of older adults were also integral training components. A complete outline of the three-module curricula is available upon request.

Recruitment

Community-based agencies employing DCWs were contacted to recruit training participants including County Commissions and Councils on Aging, a private home care agency and the Michigan Department of Human Services In-Home Help program. Most agencies paid the DCWs to attend the training programs, and in some cases, also paid their mileage to attend. A total of 78 participants attended the three-session training at one of six locations throughout rural northern Michigan. Each session was three hours long.

Measures

A total of five surveys were used to evaluate the program. A pre-training questionnaire, administered at the beginning of the first training session, addressed worker demographics, job control, workload, and job satisfaction. Post-training

questionnaires were administered at the each of the three sessions. These questionnaires also assessed changes in knowledge of the content covered and confidence in specific job skills. Confidence items were designed as retrospective questions in that participants were asked at the completion of each training session how confident they were before and at the end of the session. In addition, a three-month, mailed survey measured post-training confidence. Items were rated on a three-point scale: 3=very confident, 2=fairly confident, 1=not at all confident, on each objective of the training. Internal consistency for items was acceptable with Cronbach's alphas ranging from .75-.90. A three-month follow-up mail survey explored changes in confidence, job control, satisfaction and workload.

Results

Sample

Seventy-eight trainees participating in the three-module program at six different locations completed pre-program questionnaires. As seen in Table 1, while the age of participants ranged widely, the majority were middle-aged women, which is consistent with past research on DCWs (Mickus et al, 2004). The vast majority of participants (77.2%) had not received any training by their employer on the three topics included in the training: cleaning, meal planning/ shopping and food safety/meal preparation.

Of those who had previously received training (33%, n=18), the number of training hours ranged from 2 to 200 hours with a median value of 20 and modal value of 2. Approximately one-third (32.9%) of all trainees reported that they purchased food for their clients with their own money, averaging $12.80 per month (SD=10.88).

Job Control and Workload

As noted earlier, the pre-training questionnaire assessed participants' amount of job control, the workload they experienced, and their satisfaction with their job. These questions were also repeated at the three-month follow-up survey. The items were assessed using four-point Likert scales (1 = disagree strongly, 2 = disagree slightly, 3 = agree slightly, 4 = agree strongly). Based on Cronbach's alphas and factor analysis using principal component analysis with varimax rotation, job satisfaction was eliminated from the analyses (alphas=0.47). Job control was reduced to 7 items (from 8) and workload to 4 (from 6).

Using ANOVA on the revised scales at pre-training indicated several significant differences about job control. Individuals who worked more than 20 hours had a higher mean score on job control (3.22, SD=.44) as compared to those working less than 20 hours (2.80, SD=.51), ($F=11.89$ (1, 73), $p<.001$). Similarly, those with education beyond high school reported more control (3.27, SD=.49) compared with participants with high school or less education (2.98, SD=.43), ($F=7.49$ (1, 74), $p<.008$). However, no group differences were observed for measures related to perceived workload

Repeated measures ANOVAs on job control and workload from pre- to three-month follow-up only resulted in one significant main effect. Those individuals who worked more hours (>20 hours per week) indicated greater job control ($F =17.12$ (1,61), $p < .001$) at follow-up. There were no significant time effects or interactions for workload.

Knowledge Gained

Table 2 displays changes in knowledge based on self-report by participants for each of the training objectives. Participants were asked to comment whether the sessions covered the following: 1) what they already knew; 2) some new information; or 3) a lot of new information. In all content areas, 50% or more of the participants learned new information. Objectives from the session on meal planning and grocery shopping had the highest percentage of ratings for learned "a lot of new information," which included learning about the newly-updated USDA Food Guide Pyramid. The session on cleaning ranked the lowest.

Impact on Confidence

Impact on confidence of the participants was measured for the three topic areas (cleaning, nutrition, and meal preparation), in the pre-, post- and three-month follow-up surveys. Multivariate ANOVA indicated increased confidence ratings for every objective based on participants' self-reports before and immediately after the training sessions. Two interaction effects were observed for groupings by education and hours worked relative to cleaning. Greater gains in confidence regarding cleaning skills from pre- and post-reports for those with high school or less education were indicated than for those with more education ($F=4.08$ (2, 110), $p<.05$). Also, those working less hours (<20 hours per week) reported more confidence in cleaning immediately after the training than those working more hours ($F=4.42$ (2,108), p, .05). No significant changes in confidence levels were observed at the three-month follow-up for any of the skills.

Discussion

This research was based on one of the only documented efforts toward training home care workers for older adults on important areas of cleaning, meal preparation and food shopping. Only a minority of participants in this study had previously received training on these fundamental home enhancement skills topics from their employers, thus leaving questions about the preparation for these workers to attend to older adults. Home care knowledge and skills have traditionally been taught in secondary family and consumer sciences or home economics classes. In Michigan, however, many school districts are phasing out their Family and Consumer Sciences due to more regimented graduation standards for core courses and reduced budgets. As a result, the pool of workers suited for this work may be shrinking as younger cohorts lack necessary preparation.

The results of this study indicate that relatively low-cost training can be instituted that improves both knowledge and confidence. Training that incorporates adult learning principles with a variety of teaching methods and an opportunity for older learners to build on their experiences appears to be a successful approach as has been demonstrated in past efforts with direct care workers (Braun, Cheang & Shigeta, 2005). All participants reported improved confidence immediately after the training, although additional improvement was not seen at three months likely due to a ceiling effect. These early gains, however, were especially notable in cleaning skills among those with less education attainment and those who work part-time. It may be that those with higher education, and also those with full-time employment, already have strong confidence in their skills. Increased job control was found at three months for full-time employees, suggesting they may have had greater opportunities to apply lessons learned from the training. Measures

regarding changes in workload were not significant, which may be the result from the objective nature of this construct compared to other areas in this study, which are closely tied to participant perceptions.

These findings suggest that while training may be effective in the short-term, a system for training and information sharing needs to be instituted by employers or third-party payers to continue supporting skill development among workers. The tasks required of home care workers are highly demanding—both physically and emotionally, due to increasing rates of dementia for persons in the community, challenging clients, and isolated older adults who depend on home care workers for contact with others. Although not the focus of this study, low pay is likely to further complicate the challenges these workers face. Previous studies indicate that half of DCWs in long-term care are below the poverty line (Mickus et al, 2004). In this study, half of the workers had household incomes of less than $30,000.

This study was limited given it involved a convenience sample as determined by participating agencies. Nearly all of these agencies paid for their employees to attend the trainings, and this may have influenced the responses of the participants. Although the curricula were highly rated among participants, only one trainer was used in the study. It remains unclear whether similar success would result when using others in this leadership role.

The number of older adults in the United States continues to rapidly increase and their continued desire to “age in place” will demand preparation for a much larger workforce. To meet the demands of its aging population, Michigan’s long-term care advocates, consumers, providers, and policy-makers have set an ambitious goal to

increase its direct care workforce from the current 100,000 workers to 140,000 by 2010 (Turnham & Dawson, 2003). To accomplish this goal, many regional and state stakeholders formed coalitions to implement pilot projects aimed at improving the recruitment, training, and retention of DCWs.

The challenges to recruit these workers are not nearly as daunting as the challenges inherent in retaining them. Ongoing training for DCWs throughout the long term care continuum not only improves knowledge and confidence, but is necessary for creating a rewarding and supportive environment for this important work.

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TABLE 1. Background Characteristics of Training Participants (n=78)

Age	**46.8 (SD=10.6) Range 16-69**
Length of employment in current job	44.1 months (SD=9.8) Range 2-240 months
Hours worked per week	27.1 (SD=9.8) Range 4-40 hours
Female	91.1%
Caucasian	88.6%
High School and Some College	81.6%
Household income <$30,000	46.8%
Completed Home Economics in school	84.8%
Participated in 4-H	27.8%

TABLE 2. Percent of Participants Gains in Learning from Individual Sessions (n=78)

	Already Knew	Some New Information	A lot of New Information
Cleaning attitudes and values	34.7	59.7	5.6
Communicating with older adults	50.7	42.5	6.8
Cleaning safety hazards	49.3	39.4	11.3
Preparing work plan	37	50.7	12.3
Steps to follow when cleaning	26.4	55.6	18.1
Handling food safely	15.5	71.7	13.3
Selecting recipes	18.3	63.3	18.3
Using leftovers	16.7	68.3	15.0
Meal planning	16.7	59.7	23.6
Age-related nutritional needs	16.7	62.5	20.8
Food Guide Pyramid	17.1	52.9	30.0
Food shopping	28.2	50.7	21.1
Reading food labels	29.6	49.3	21.1